1: NP_066124. Reports ret proto-oncogen...[gi:10862703]

BLink, Conserved Domains, Links

Comment Features Sequence

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DEFINITION  ret proto-oncogene isoform a [Homo sapiens].
ACCESSION   NP_066124
VERSION     NP_066124.1  GI:10862703
DBSOURCE    REFSEQ: accession NM_020975.4
KEYWORDS    .
SOURCE      Homo sapiens (human)
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            Mammalia; Eutheria; Euarchontoglires; Primates; Haplorrhini;
            Catarrhini; Hominidae; Homo.
REFERENCE   1  (residues 1 to 1114)
  AUTHORS   Pigny,P., Cardot-Bauters,C., Do Cao,C., Vantyghem,M.C.,
            Carnaille,B., Pattou,F., Caron,P., Wemeau,J.L. and Porchet,N.
  TITLE     Should genetic testing be performed in each patient with sporadic
            pheochromocytoma at presentation?
  JOURNAL   Eur. J. Endocrinol. 160 (2), 227-231 (2009)
   PUBMED   19029228
  REMARK    GeneRIF: Observational study of gene-disease association. (HuGE
            Navigator)
REFERENCE   2  (residues 1 to 1114)
  AUTHORS   Henderson,Y.C., Shellenberger,T.D., Williams,M.D., El-Naggar,A.K.,
            Fredrick,M.J., Cieply,K.M. and Clayman,G.L.
  TITLE     High rate of BRAF and RET/PTC dual mutations associated with
            recurrent papillary thyroid carcinoma
  JOURNAL   Clin. Cancer Res. 15 (2), 485-491 (2009)
   PUBMED   19147753
  REMARK    GeneRIF: Observational study of gene-disease association. (HuGE
            Navigator)
REFERENCE   3  (residues 1 to 1114)
  AUTHORS   Ito,Y., Miyauchi,A., Yabuta,T., Fukushima,M., Inoue,H., Tomoda,C.,
            Uruno,T., Kihara,M., Higashiyama,T., Takamura,Y., Miya,A.,
            Kobayashi,K. and Matsuzuka,F.
  TITLE     Alternative surgical strategies and favorable outcomes in patients
            with medullary thyroid carcinoma in Japan: experience of a single
            institution
  JOURNAL   World J Surg 33 (1), 58-66 (2009)
   PUBMED   19005720
  REMARK    GeneRIF: Observational study of gene-disease association. (HuGE
            Navigator)
REFERENCE   4  (residues 1 to 1114)
  AUTHORS   Cincinelli,R., Cassinelli,G., Dallavalle,S., Lanzi,C., Merlini,L.,
            Botta,M., Tuccinardi,T., Martinelli,A., Penco,S. and Zunino,F.
  TITLE     Synthesis, modeling, and RET protein kinase inhibitory activity of
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3- and 4-substituted beta-carbolin-1-ones
JOURNAL J. Med. Chem. 51 (24), 7777-7787 (2008)
PUBMED 19053769
REMARK GeneRIF: analysis of how RET protein kinase is inhibited by beta-carbolin-1-ones
REFERENCE 5 (residues 1 to 1114)
AUTHORS Umansky,V., Abschuetz,O., Osen,W., Ramacher,M., Zhao,F., Kato,M. and Schadendorf,D.
TITLE Melanoma-specific memory T cells are functionally active in Ret transgenic mice without macroscopic tumors
JOURNAL Cancer Res. 68 (22), 9451-9458 (2008)
PUBMED 19010920
REMARK GeneRIF: Melanoma-specific memory T cells are functionally active in Ret transgenic mice without macroscopic tumors.
REFERENCE 6 (sites)
AUTHORS Kawamoto,Y., Takeda,K., Okuno,Y., Yamakawa,Y., Ito,Y., Taguchi,R., Kato,M., Suzuki,H., Takahashi,M. and Nakashima,I.
TITLE Identification of RET autophosphorylation sites by mass spectrometry
JOURNAL J. Biol. Chem. 279 (14), 14213-14224 (2004)
PUBMED 14711813
REFERENCE 7 (sites)
AUTHORS Iwashita,T., Kato,M., Murakami,H., Asai,N., Ishiguro,Y., Ito,S., Iwata,Y., Kawai,K., Asai,M., Kurokawa,K., Kajita,H. and Takahashi,M.
TITLE Biological and biochemical properties of Ret with kinase domain mutations identified in multiple endocrine neoplasia type 2B and familial medullary thyroid carcinoma
JOURNAL Oncogene 18 (26), 3919-3922 (1999)
PUBMED 10445857
REFERENCE 8 (sites)
AUTHORS Liu,X., Vega,Q.C., Decker,R.A., Pandey,A., Worby,C.A. and Dixon,J.E.
TITLE Oncogenic RET receptors display different autophosphorylation sites and substrate binding specificities
JOURNAL J. Biol. Chem. 271 (10), 5309-5312 (1996)
PUBMED 8621380
REFERENCE 9 (residues 1 to 1114)
AUTHORS Itoh,F., Ishizaka,Y., Tahira,T., Yamamoto,M., Miya,A., Imai,K., Yachi,A., Takai,S., Sugimura,T. and Nagao,M.
TITLE Identification and analysis of the ret proto-oncogene promoter region in neuroblastoma cell lines and medullary thyroid carcinomas from MEN2A patients
JOURNAL Oncogene 7 (6), 1201-1206 (1992)
PUBMED 1350670
REFERENCE 10 (residues 1 to 1114)
AUTHORS Santoro,M., Carlomagno,F., Hay,I.D., Herrmann,M.A., Grieco,M., Melillo,R., Pierotti,M.A., Bongarzone,I., Della Porta,G., Berger,N. et al.
TITLE Ret oncogene activation in human thyroid neoplasms is restricted to the papillary cancer subtype
JOURNAL J. Clin. Invest. 89 (5), 1517-1522 (1992)
PUBMED 1569189
REFERENCE 11 (residues 1 to 1114)
AUTHORS Galland,F., Stefanova,M., Lafage,M. and Birnbaum,D.
TITLE Localization of the 5' end of the MCF2 oncogene to human chromosome 15q15----q23
JOURNAL Cytogenet. Cell Genet. 60 (2), 114-116 (1992)
PUBMED 1611909
REFERENCE 12 (residues 1 to 1114)

AUTHORS Jhiang,S.M., Chiu,I.M. and Mazzaferri,E.L.
TITLE An STS in the human PTC oncogene located at 10q11.2
JOURNAL Nucleic Acids Res. 19 (15), 4303 (1991)
PUBMED 1678508
REFERENCE 13 (residues 1 to 1114)
AUTHORS Tahira,T., Ishizaka,Y., Itoh,F., Sugimura,T. and Nagao,M.
TITLE Characterization of ret proto-oncogene mRNAs encoding two isoforms of the protein product in a human neuroblastoma cell line
JOURNAL Oncogene 5 (1), 97-102 (1990)
PUBMED 2181380
COMMENT REVIEWED REFSEQ: This record has been curated by NCBI staff. The reference sequence was derived from DA100452.1, BC003072.2, BC004257.1, X12949.1, AC010864.11 and BM661773.1.

Summary: This gene, a member of the cadherin superfamily, encodes one of the receptor tyrosine kinases, which are cell-surface molecules that transduce signals for cell growth and differentiation. This gene plays a crucial role in neural crest development, and it can undergo oncogenic activation in vivo and in vitro by cytogenetic rearrangement. Mutations in this gene are associated with the disorders multiple endocrine neoplasia, type IIA, multiple endocrine neoplasia, type IIB, Hirschsprung disease, and medullary thyroid carcinoma. Two transcript variants encoding different isoforms have been found for this gene. Additional transcript variants have been described but their biological validity has not been confirmed. [provided by RefSeq].

Transcript Variant: This variant (2) represents the longer transcript and encodes the longer isoform (a). This isoform is also known as Ret51.

Publication Note: This RefSeq record includes a subset of the publications that are available for this gene. Please see the Entrez Gene record to access additional publications.

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